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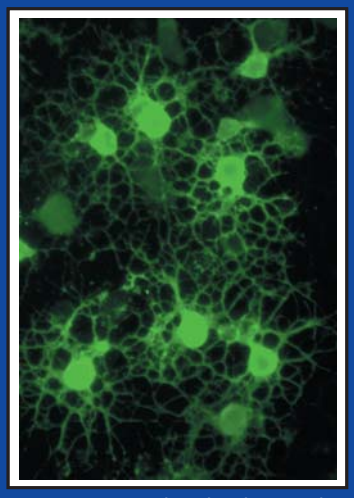
NINDS Notes

National Institute of Neurological Disorders and Stroke

National Institutes of Health
U.S. Department of Health and Human Services

NINDS Notes is published 3 times a year and consists of summaries of NINDS's current funding announcements and requests for volunteers for clinical trials. *Notes* is of primary importance to scientists, physicians, and research directors with an interest in neuroscience.



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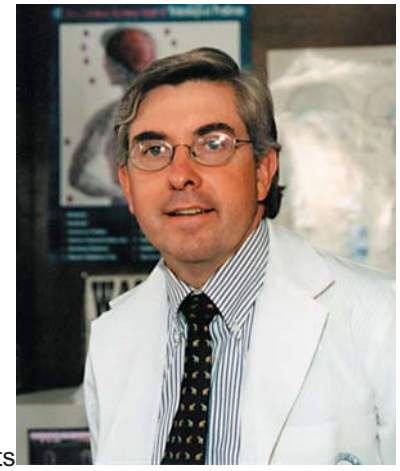

Dr. Walter J. Koroshetz was recently named deputy director of the National Institute of Neurological Disorders and Stroke. His appointment began on January 2.

Prior to joining NINDS, Dr. Koroshetz was vice-chair of the neurology service and director of stroke and neurointensive care services at Massachusetts General Hospital (MGH). He was also a professor of neurology at Harvard Medical School and has led neurology resident training at MGH since 1990.

"Dr. Koroshetz is an internationally renowned neurologist and outstanding investigator and administrator. His leadership skills and recognized expertise in stroke, imaging, training, and neurointensive care will serve the Institute well," said NINDS Director Dr. Story Landis.

As deputy director, Dr. Koroshetz will work with Dr. Landis in program planning, budgeting, and guiding the Institute's scientific and administrative functions.

Born in Brooklyn, New York, Dr. Koroshetz earned his undergraduate degree from Georgetown University in 1975 and his medical degree from the University of Chicago in 1979. He trained in internal medicine at the University of Chicago and MGH, in neurology at MGH, and did postdoctoral studies in cellular neurophysiology at MGH and the Harvard neurobiology department. He joined the neurology staff, first in the Huntington's disease unit and then in the stroke and neurointensive care service.

During his career Dr. Koroshetz has conducted basic electrophysiology research in cell membranes and in cultures of nerve cells and glial cells (which support nerve cells). His clinical research has focused on finding new treatments for patients with Huntington's disease and stroke. He is the author of more than 100 peer-reviewed publications as well as numerous book chapters and review articles. He has supervised the training of more than 150 residents and fellows.

Dr. Koroshetz is no stranger to NINDS. He has served on NINDS intramural review and oversight committees, been involved in various NINDS symposia and clinical trials, and served as the Institute's representative at the American Neurological Association's Career Development Symposium. He was not only a member of the NINDS-chaired Brain Attack Coalition—a group of professional, voluntary, and governmental entities dedicated to reducing the occurrence, disabilities, and death associated with stroke—but also led the committee whose work resulted in significantly higher hospital reimbursement for acute ischemic stroke management.

As an NINDS grantee, Dr. Koroshetz received funding for laboratory and clinical research projects on Huntington's disease, neuroprotection, and translational research in acute stroke.

He is a member of numerous professional societies, including the American Academy of Neurology, American Neurological Association, Society for Neuroscience, Huntington's Disease Society, American Society of Neuroimaging, American Stroke Association, and National Stroke Association. He is associate editor for MRI with the *Journal of Neuroimaging* and was an associate editor of *Cerebrovascular Diseases*.

Koroshetz replaces Dr. Audrey S. Penn who has served as deputy director since 1995 and is now senior advisor to the NINDS director. *NN*

No More Paper

NIH Requires Electronic Application Submission

The National Institutes of Health (NIH) is replacing paper grant applications with electronic applications and has begun the transition to requiring electronic submission of grant applications via the online portal of Grants.gov. As of February 5, 2007, NIH requires electronic application submission for all R01 applications. The R01 is NIH's most heavily used grant mechanism application. For more information see: http://era.nih.gov/ElectronicReceipt/index.htm. *NN*

NINDS Adds Scientific Resources to the Web

NINDS recently added a directory of tools and resources for neuroscience researchers to its website. The new section is part of the Institute's ongoing commitment to neurological investigators to enable and expedite research, and includes information on animal models, gene expression, research reagents, cell/tissue/DNA, and clinical and translational resources. Visit the section directly at http://www.ninds.nih.gov/funding/research/scientific_resources/index_research.htm, or from any page within the *Funding and Research* category, or via *Resources for Scientists* on the left side bar of the homepage. *NN*

Funding Opportunities

Assays for High Throughput Screening

The National Institutes of Health (NIH) invite applications for assays for high throughput screening to support the molecular libraries screening network (MLSCN).

This program announcement is an NIH Roadmap Initiative. The NIH Roadmap is an innovative approach to accelerate fundamental discovery and translate that knowledge into effective prevention strategies and new treatments. All NIH institutes and centers participate in Roadmap Initiatives.

The purpose of this announcement is to solicit high throughput screening assays from the scientific community by identifying investigators who have the interest and capability to work with the MLSCN in support of chemical probe development. The MLSCN offers biomedical researchers access to large-scale automated screening centers, diverse compound libraries and information on biological activities of small molecules.

LETTERS OF INTENT RECEIPT DATE: May 26, 2007 and September 26, 2007.

APPLICATION RECEIPT DATE: June 26, 2007 and October 26, 2007.

For more information, potential applicants should contact Dr. Ingrid Li, Molecular Libraries Assay Access Team, NIH Molecular Libraries & Imaging Roadmap, National Institute of Mental Health/NIH/DHHS; telephone: 301-443-5288; e-mail: ili1@mail.nih.gov. For a more detailed description of this announcement, visit http://grants.nih.gov/grants/guide/pa-files/PAR-06-545.html. For more information on the NIH Roadmap, visit http://nihroadmap.nih.gov/.*NN*

Autism and Autism Spectrum Disorders

The National Institute of Neurological Disorders and Stroke (NINDS) invites grant applications for research on autism and autism spectrum disorders. This announcement is made together with 6 other components of the National Institutes of Health (NIH).

Autism is a complex neurodevelopmental disorder with early childhood onset. Autism spectrum disorders share a cluster of impairments in reciprocal social interaction and communication and/or the presence of stereotyped behavior, interests, and activities. These complex disorders are usually lifelong, and affect multiple aspects of development, learning, and adaptation in the community. The causes of these disorders are poorly understood, but are thought to include genetic, metabolic, immunologic, or infectious or other environmental influences.

For more information, potential applicants should contact Dr. Deborah Hirtz, Program Director, Clinical Trials Group, NINDS; telephone: 301-496-5821; e-mail: dh83f@nih.gov. For a more detailed description of this announcement, visit http://grants.nih.gov/grants/guide/pa-files/PA-07-085.html.*NN*

Fragile X Syndrome and Autism

The National Institute of Neurological Disorders and Stroke (NINDS) encourages grant applications for research on the shared neurobiology of fragile X syndrome and autism. This announcement is made together with 2 other components of the National Institutes of Health (NIH), the Canadian Institutes of Health Research (CIHR), the Health Research Board (HRB) of Ireland, the FRAXA Research Foundation, Cure Autism Now (CAN), the National Alliance for Autism Research (NAAR), and Autism Speaks.

Fragile X syndrome is the most common inherited form of mental retardation. Autism is a complex neurodevelopmental disorder with early childhood onset. Between 2.5 percent and 6 percent of autistic individuals have fragile X syndrome, and approximately 25 percent of children with fragile X have autism. Applications in response to this announcement should focus on a topic related to understanding neural pathways, circuits, systems, and molecules that play a role in the cause or pathophysiology of fragile X syndrome and that may be implicated in autism.

For more information, potential applicants should contact Dr. Laura Mamounas, Program Director, Neurogenetics Cluster, NINDS; telephone: 301-496-5745; e-mail: lm92t@nih.gov. For a more detailed description of this announcement, visit http://grants.nih.gov/grants/guide/pa-files/PA-07-284.html.*NN*

Bioengineering Research Grants

The National Institute of Neurological Disorders and Stroke (NINDS) encourages grant applications for bioengineering research. This announcement is made together with 14 other components of the National Institutes of Health (NIH).

Many major biomedical research problems are addressed using a multidisciplinary approach that extends beyond traditional biological and clinical sciences. Bioengineering integrates principles from a diversity of technical and biomedical fields, and the resulting research provides new basic understandings, novel products, and innovative technologies that improve basic knowledge, health, and quality of life. Bioengineering also crosses the boundaries of scientific disciplines that are represented throughout academia, federal laboratories, and industry.

For more information, potential applicants should contact Dr. Joseph Pancrazio, Program Director, Repair and Plasticity Cluster, NINDS; telephone: 301-496-1447; e-mail: jp439m@nih.gov. For a more detailed description of this announcement, visit http://grants.nih.gov/grants/guide/pa-files/PA-07-279.html.*NN*

Brain Disorders in the Developing World

The National Institute of Neurological Disorders and Stroke (NINDS) invites grant applications for research on brain disorders across the lifespan that are relevant to developing countries. This announcement is made together with 9 other components of the National Institutes of Health (NIH), the Canadian Institutes of Health Research (CIHR), and the National Association of Autism Research (NAAR).

The purpose of this announcement is to support research on the development and conduct of innovative, collaborative research and research training projects, between developed and developing country scientists, on brain disorders throughout life, relevant to low- and middle-income nations. The collaborative research programs should involve research on neurological/neurodevelopmental (including sensory, motor, cognitive and behavioral) function and impairment throughout life, and contribute to the long-term goal of building sustainable research capacity in developing countries to initiate and conduct such research.

For more information, potential applicants should contact Dr. Yuan Liu, Chief, Office of International Activities, NINDS; telephone: 301-496-1917; e-mail: yl5o@nih.gov. For a more detailed description of this announcement, visit http://grants.nih.gov/grants/guide/pa-files/PAR-07-268.html.*NN*

Brain Tumor Dispersal

The National Institute of Neurological Disorders and Stroke (NINDS) and the National Cancer Institute (NCI) invite applications for research on understanding and preventing brain tumor dispersal.

Many brain tumors are highly invasive and therefore extremely difficult to treat. Cells from the primary tumor often infiltrate surrounding brain tissues, so that removal of the main tumor mass is not sufficient to prevent recurrence. Determining the properties unique to invading brain tumor cells, and understanding how these cells interact with normal brain elements, will suggest rational strategies for blocking tumor dispersal.

For more information, potential applicants should contact Dr. Jane Fountain, Program Director, Neural Environment Cluster, NINDS; telephone: 301-496-1431; email: jf227t@nih.gov. For a more detailed description of this program announcement, visit http://grants.nih.gov/grants/guide/pa-files/PAS-07-196.html.*NN*

Chronic Fatigue Syndrome

The National Institute of Neurological Disorders and Stroke (NINDS) encourages applications for research on chronic fatigue syndrome. This announcement is made together with 11 other components of the National Institutes of Health (NIH) and is supported by 3 funding mechanisms: R01, R03, and R21.

Chronic fatigue syndrome (CFS) is a debilitating and complex syndrome that involves multiple body systems. It is characterized by profound fatigue that is not improved by bed rest and may be exacerbated or re-kindled by physical or mental activity. Other symptoms associated with CFS include cognitive deficits, impaired sleep, myalgia, arthralgia, headache, gastrointestinal symptoms, and tender lymph nodes. Innovative studies are needed to provide a better understanding of CFS and its prevalence, pathogenesis, and pathophysiology, with the goal of developing improved diagnostic and intervention strategies.

For more information, potential applicants should contact Dr. Linda Porter, Program Director, Systems and Cognitive Neuroscience Cluster, NINDS; telephone: 301-496-9964; e-mail: lp216a@nih.gov. For a more detailed description of this announcement, visit http://grants.nih.gov/grants/guide/pa-files/PA-07-263.html (R03), http://grants.nih.gov/grants/guide/pa-files/PA-07-264.html (R21), or http://grants.nih.gov/grants/guide/pa-files/PA-07-265.html (R01).*NN*

Emotion Research

The National Institute of Neurological Disorders and Stroke (NINDS) invites grant applications for basic and translational research on emotion. This announcement is made together with 6 other components of the National Institutes of Health (NIH).

The study of emotion encompasses a wide range of physiological, social, cognitive, and developmental phenomena. It includes investigations of overt behaviors, interpersonal relationships, communication and decision-making, and the environmental circumstances and experiences that shape and elicit emotions. Emotion research can also include the study of licit and illicit psychoactive substances that alter mood, and conversely, the study of how emotions and moods can predispose to, or modulate the effects of, pain or alcohol and psychoactive substances.

For more information, potential applicants should contact Dr. Debra Babcock, Program Director, Systems and Cognitive Neuroscience Cluster, NINDS; telephone: 301-496-9964; e-mail: db390r@nih.gov. For a more detailed description of this announcement, visit http://grants.nih.gov/grants/guide/pa-files/PA-07-083.html.*NN*

Epilepsy Research for Junior Investigators

The National Institute of Neurological Disorders and Stroke (NINDS) and the National Institute on Aging (NIA) encourage applications for collaborative awards in epilepsy research for junior investigators.

Epilepsy—characterized by the repeated occurrence of uncontrolled seizures—is one of the most common neurological disorders in the United States. Currently it affects approximately 15 million Americans of all ages and backgrounds. Despite many decades of research, new drugs, and advances in surgery, many people with epilepsy still suffer. The goal of this announcement is to stimulate epilepsy research by promoting collaborations among junior investigators. Junior investigators are considered to be graduate students, postdoctoral fellows, and junior faculty (at or below the rank of assistant professor).

For more information, potential applicants should contact Margaret Jacobs, Program Director, Channels, Synapses, and Circuits Cluster, NINDS; telephone: 301-496-1917; e-mail: mj22o@nih.gov. For a more detailed description of this program announcement, visit http://grants.nih.gov/grants/guide/pa-files/PA-07-200.html.*NN*

Ethical Issues in Human Subjects Research

The National Institute of Neurological Disorders and Stroke (NINDS) encourages applications for research on ethical issues in human subjects research. This announcement is made together with 16 other components of the National Institutes of Health (NIH).

Recent developments in biomedical and behavioral research—which include the rapid growth of new interventions and technologies, increasing involvement of foreign populations in human subjects research, and concerns about financial conflicts of interest among researchers—challenge the ability of investigators to interpret and apply necessary ethical regulations. Other situations may present difficulties for identifying strategies, procedures, and/or techniques that will enhance or ensure the ethical involvement of human subjects in research. Thus, research on ethical issues in human subjects research is necessary to enhance interpretation and application of ethical principles and regulatory requirements.

For more information, potential applicants should contact Joanne Odenkirchen, Clinical Research Project Manager, Clinical Trials Group, NINDS; telephone: 301-496-3104; e-mail: jo21x@nih.gov. For a more detailed description of this announcement, visit http://grants.nih.gov/grants/guide/pa-files/PA-07-277.html.*NN*

Focal Cognitive Deficits in CNS Disorders

The National Institute of Neurological Disorders and Stroke (NINDS) invites applications for research on focal cognitive deficits in central nervous system (CNS) disorders. This announcement is made together with 4 other components of the National Institutes of Health and is supported by 2 funding mechanisms: R01 and R21.

It is estimated that more than 95 million Americans live with a disorder of the CNS. The burden of these disorders, including their affect on cognition, is substantial. Disorders of the CNS and their consequent impact on cognition have the potential to profoundly impact the subsequent health of persons with these diseases. The purpose of this announcement is to study the focal, or specific and limited, cognitive deficits experienced by persons with CNS disorders and the secondary effects on their health and quality of life.

For more information, potential applicants should contact Dr. Debra Babcock, Program Director, Systems and Cognitive Neuroscience Cluster, NINDS; telephone: 301-496-9964; e-mail: db390r@nih.gov. For a more detailed description of this announcement, visit http://grants.nih.gov/grants/guide/pa-files/PA-07-033.html (R01) or http://grants.nih.gov/grants/guide/pa-files/PA-07-035.html (R21).*NN*

Functional Links Between the Immune System, Brain Function, and Behavior

The National Institute of Neurological Disorders and Stroke (NINDS) encourages grant applications for research on functional links between the immune system, brain function, and behavior. This announcement is made together with 5 other components of the National Institutes of Health (NIH).

The purpose of this program announcement is to identify research opportunities that may bridge the gap in understanding how immune cells and their mediators affect brain development, function, and behaviors related to cognition and mood.

For more information, potential applicants should contact Dr. Ursula Utz, Program Director, Neural Environment Cluster, NINDS; telephone: 301-496-1431; e-mail: uu1p@nih.gov. For a more detailed description of this program announcement, please visit the NIH web site at: http://grants.nih.gov/grants/guide/pa-files/PA-07-088.html.*NN*

HIV Infection of the Central Nervous System

The National Institute of Neurological Disorders and Stroke (NINDS) encourages research on HIV infection of the central nervous system (CNS). This announcement is made together with 4 other components of the National Institutes of Health (NIH).

The introduction of highly active anti-retroviral therapy (HAART) has resulted in significantly improved survival of AIDS patients and decreased incidence of HIV-associated dementia. Despite the reduced incidence of HIV dementia, the improved survival has resulted in increased cumulative prevalence of nervous system complications of AIDS. While improvements in treatment for AIDS have occurred in the developed world, a significant number of new infections are being reported in developing countries. The neurological and neuropsychiatric complications resulting from new infections in the developing world are likely to cause significant disability and death.

For more information, potential applicants should contact Dr. Michael Nunn, Program Director, Neural Environment Cluster, NINDS; telephone: 301-496-1431; e-mail: mn52e@nih.gov. For a more detailed description of this announcement, visit http://grants.nih.gov/grants/guide/pa-files/PA-07-089.html.*NN*

Neurological Complications of AIDS

The National Institute of Neurological Disorders and Stroke (NINDS), the National Institute on Drug Abuse (NIDA), and the National Institute of Mental Health (NIMH) encourage applications to develop and use non-human lentiviral models of the neurological complications of AIDS.

Neurological dysfunction is a devastating complication of HIV/AIDS, affecting more than 25 percent of chronically infected individuals. Symptoms include cognitive deficits, motor impairment, and peripheral neuropathies. However, the strict host range of HIV-1 infection has blocked the widespread use of animal models in translational research toward the development of therapies for treating AIDS. The purpose of this announcement is to promote the development and use of non-human lentiviruses in animal models for research into the mechanisms underlying the neurological complications associated with HIV-1 infection in humans. The ultimate goal is to refine lentiviral model systems for use in discovering therapies for AIDS patients with and without a history of drug use.

For more information, potential applicants should contact Dr. Michael Nunn, Program Director, Neural Environment Cluster, NINDS; telephone: 301-496-1431; e-mail: mn52e@nih.gov. For a more detailed description of this announcement, visit http://grants.nih.gov/grants/guide/pa-files/PAS-07-191.html.*NN*

Lysosomal Storage Disorders

The National Institute of Neurological Disorders and Stroke (NINDS) and the Office of Rare Disorders (ORD) invite grant applications for central nervous system (CNS) therapy development for lysosomal storage disorders.

Lysosomal storage disorders include about 50 metabolic diseases that collectively affect approximately 1 in 5000 live births. Each of these diseases has heterogeneous pathophysiology and clinical manifestations resulting from deficient activity of specific hydrolases. In some cases, the genetic defect can be in an activator protein for a lysosomal hydrolase or a transporter protein for the metabolites. All of these deficiencies lead to a characteristic pathological accumulation and storage of the substrate for that enzyme in the lysosomes. The consequent accumulation of undigested metabolites in lysosomes leads to multi-systemic dysfunction, including progressive neurologic deterioration, mental retardation, organomegaly, blindness, and early death.

For more information, potential applicants should contact Dr. Danilo Tagle, Program Director, Neurogenetics Cluster, NINDS; telephone: 301-496-5745; e-mail: dt39y@nih.gov. For a more detailed description of this announcement, visit http://grants.nih.gov/grants/guide/pa-files/PAS-07-195.html.*NN*

Migraine (Neurobiology)

The National Institute of Neurological Disorders and Stroke (NINDS) invites grant applications for research on the neurobiology of migraine. This announcement is made together with 3 other components of the National Institutes of Health (NIH) and is supported by 2 funding mechanisms: R01 and R21.

Migraine headaches affect a large percentage (20 percent) of the population, account for most pain-related emergency room visits, and may persist as a chronic condition that extends throughout the lifespan. Despite the prevalence of migraine and a long history of relevant research, many questions remain.

For more information, potential applicants should contact Dr. Linda Porter, Program Director, Neurogenetics Cluster, NINDS, telephone: 301-496-9964; e-mail: lp216a@nih.gov. For a more detailed description of this announcement, visit http://grants.nih.gov/grants/guide/pa-files/PA-07-305.html (R01) or http://grants.nih.gov/grants/guide/pa-files/PA-07-306.html (R21).*NN*

Pain Research Encouraged

The National Institute of Neurological Disorders and Stroke (NINDS) encourages applications for research on the mechanisms, models, measurement, and management of pain. This announcement is made together with 11 other components of the National Institutes of Health (NIH).

Pain is a critical national health problem. Chronic pain affects more than 50 million Americans per year, often results in disability, and has a profound effect on the quality of life. New advances are needed in every area of pain research, from the micro perspective of molecular sciences to the macro perspective of behavioral and social sciences. Although great strides have been made in some areas—such as the identification of neural pathways of pain—the experience of pain and the challenge of treatment have remained unsolved.

For more information, potential applicants should contact Dr. Linda Porter, Program Director, Neurogenetics Cluster, NINDS, telephone: 301-496-9964; e-mail: lp216a@nih.gov. For a more detailed description of this announcement, visit http://grants.nih.gov/grants/guide/pa-files/PA-07-282.html.*NN*

Multiple Sclerosis

The National Institute of Neurological Disorders and Stroke (NINDS) invites grant applications for research on axonal damage in multiple sclerosis (MS) and strategies for protection and repair.

MS is the second most common neurological disorder leading to disability in young adults, surpassed only by trauma. The disease is characterized by chronic inflammation and demyelination of the central nervous system (CNS) that over time may result in neurodegeneration. While axonal damage and neuronal cell death are likely to be the major cause of disability in the later, progressive phase of MS, new evidence suggests that even at early stages severance of nerve axons may occur and lead to irreparable nerve damage. Currently available therapies do not appear to significantly impact this tissue loss.

For more information, potential applicants should contact Dr. Ursula Utz, Program Director, Neural Environment Cluster, NINDS; telephone: 301-496-1431; e-mail: uu1p@nih.gov. For a more detailed description of this announcement, visit http://grants.nih.gov/grants/guide/pa-files/PAS-07-193.html.*NN*

Muscular Dystrophy

The National Institute of Neurological Disorders and Stroke (NINDS) encourages grant applications for research on the pathogenesis and therapies for muscular dystrophy. This announcement is made together with 3 other components of the National Institutes of Health (NIH).

Muscular dystrophies—which are characterized by progressive weakness and wasting of muscles—collectively have a high impact on health, affecting tens of thousands of people in the United States alone. Many cases of muscular dystrophy represent new occurrences of disease, where there is no prior family history. Though recent research has increased knowledge about genetic defects associated with many forms of muscular dystrophy, there has not been a corresponding improvement in treatment of these diseases. There is a need to learn more about the pathogenesis of the diseases and to improve early detection, diagnosis, treatment, and prevention.

For more information, potential applicants should contact Dr. John Porter, Program Director, Channels, Synapses, and Circuits Cluster, NINDS; telephone: 301-496-1917; e-mail: jp477n@nih.gov. For a more detailed description of this announcement, visit http://grants.nih.gov/grants/guide/pa-files/PA-07-125.html.*NN*

NIH Pathway to Independence Awards

The National Institute of Neurological Disorders and Stroke (NINDS) invites applications for National Institutes of Health (NIH) Pathway to Independence (PI) Awards. This announcement is made together with 23 other components of the NIH.

One of the most challenging transitions in any research career is that from postdoctoral trainee to independent scientist. NIH believes that the creativity and innovation of new independent investigators in their early career stages play an integral role in addressing our nation's biomedical, behavioral, and clinical research needs. The PI award has two phases—a mentored phase of up to 2 years at an eligible extramural sponsoring institution/organization or NIH intramural laboratory followed by an independent scientist phase of up to 3 years sponsored by an extramural institution/organization to which the individual has been recruited.

For more information, potential applicants should contact Dr. Stephen Korn, Director, Training and Career Development, NINDS; telephone: 301-496-4188; e-mail: NINDStrainingoffice@ninds.nih.gov. For a more detailed description of this announcement, visit http://grants.nih.gov/grants/guide/pa-files/PA-07-297.html.*NN*

National Research Service Awards/Individual Postdoctoral Fellows

The National Institute of Neurological Disorders and Stroke (NINDS) encourages applications for Ruth L. Kirschstein National Research Service Awards (NRSA) for Individual Postdoctoral Fellows. This announcement is made together with 20 other components of the National Institutes of Health (NIH).

The objective of the NRSA is to provide support to promising postdoctoral applicants who have the potential to become productive and successful independent research investigators in scientific health-related fields relevant to the missions of the participating NIH institutes and centers. The proposed postdoctoral training must be within the broad scope of biomedical, behavioral, or clinical research or other specific disciplines relevant to the NIH research mission, and must offer an opportunity to enhance the fellow's understanding of the health-related sciences and extend his or her potential for a productive research career.

For more information, potential applicants should contact Dr. Stephen Korn, Director, Training and Career Development, NINDS; telephone: 301-496-4188; e-mail: NINDStrainingoffice@ninds.nih.gov. For a more detailed description of this announcement, visit http://grants.nih.gov/grants/guide/pa-files/PA-07-107.html.*NN*

National Research Service Awards/Individual Predoctoral Fellows

The National Institute of Neurological Disorders and Stroke (NINDS) invites applications for Ruth L. Kirschstein National Research Service Awards (NRSA) for individual predoctoral fellows. This announcement is made together with 7 other components of the National Institutes of Health (NIH).

The purpose of this initiative is to provide support for promising doctoral candidates who will be performing dissertation research and training in scientific health-related fields relevant to the missions of the participating NIH Institutes during the tenure of the award. The award will provide up to five years of support for research training which leads to the Ph.D. or equivalent research degree, the combined M.D./Ph.D. degree, or another formally combined professional degree and research doctoral degree in the biomedical, behavioral, or clinical sciences.

For more information, potential applicants should contact Dr. Stephen Korn, Director, Training and Career Development, NINDS; telephone: 301-496-4188; e-mail: NINDStrainingoffice@ninds.nih.gov. For a more detailed description of this announcement, visit http://grants.nih.gov/grants/guide/pa-files/PA-07-002.html.*NN*

National Research Service Awards/Individual Predoctoral Fellowships to Promote Diversity

The National Institute of Neurological Disorders and Stroke (NINDS) invites applications for the Ruth L. Kirschstein National Research Service Award (NRSA) for individual predoctoral fellowships to promote diversity in health-related research. This announcement is made together with 21 other components of the National Institutes of Health (NIH) and the Agency for Healthcare Research and Quality (AHRQ).

The goal of this initiative is to improve the diversity of the health-related research workforce by supporting the training of predoctoral students from underrepresented groups, including individuals with disabilities, minority and ethnic groups, and individuals from disadvantaged backgrounds. The awards provide up to 5 years of support for research training leading to the Ph.D. or equivalent research degree, the combined M.D./Ph.D. degree, or another formally combined professional degree and research doctoral degree in biomedical, behavioral, health services, or clinical sciences. The primary objective is to help ensure that diverse pools of highly trained scientists will be available in appropriate research areas to carry out the Nation's biomedical, behavioral, health services, or clinical research agenda.

For more information, potential applicants should contact Dr. Michelle Jones-London, Program Director, Office of Minority Health and Research, NINDS; telephone: 301-496-3102; e-mail: mj146o@nih.gov. For a more detailed description of this announcement, visit http://grants.nih.gov/grants/guide/pa-files/PA-07-106.html.*NN*

National Research Service Awards/Individual Senior Fellows

The National Institute of Neurological Disorders and Stroke (NINDS) invites applications for Ruth L. Kirschstein National Research Service Awards (NRSA) for individual senior fellows. This announcement is made together with 16 other components of the National Institutes of Health (NIH).

The objective of the award is to provide senior fellowship support to experienced scientists who wish to make major changes in the direction of their research careers or who wish to broaden their scientific background by acquiring new research capabilities as independent research investigators in scientific health-related fields relevant to the missions of the participating NIH Institutes and Centers (ICs). These awards enable individuals with at least seven years of research experience beyond the doctorate, and who have progressed to the stage of independent investigator, to take time from regular professional responsibilities to receive training to increase their scientific capabilities.

For more information, potential applicants should contact Dr. Stephen Korn, Director, Training and Career Development, NINDS; telephone: 301-496-4188; e-mail: NINDStrainingoffice@ninds.nih.gov. For a more detailed description of this announcement, visit http://grants.nih.gov/grants/guide/pa-files/PA-07-172.html.*NN*

New Innovator Awards

The National Institutes of Health (NIH) invite applications for the 2007 NIH Director's New Innovator Award Program.

This announcement is an NIH Roadmap Initiative. The NIH Roadmap is an innovative approach to accelerate fundamental discovery and translate that knowledge into effective prevention strategies and new treatments. All NIH institutes and centers participate in Roadmap Initiatives.

The purpose of the new innovator award program is to stimulate highly innovative research and support promising new investigators. New investigators may have exceptionally innovative research ideas, but not the required preliminary data to fare well in the traditional peer review system. As part of its commitment to increase the success of new investigators, NIH created the new innovator awards. These awards support exceptionally creative new innovators who propose highly innovative approaches that have the potential to produce an unusually high impact.

APPLICATION RECEIPT DATE: May 22, 2007.

For more information, potential applicants should contact Dr. Judith H. Greenberg, Director, Division of Genetics and Developmental Biology, NIGMS; telephone: 301-594-4469; e-mail: newinnovator@nih.gov. For a more detailed description of this announcement, visit http://grants.nih.gov/guide/rfa-files/RFA-RM-07-009.htm. For more information on the NIH Roadmap, visit http://nihroadmap.nih.gov/.*NN*

Networks and Pathways Collaborative Research Projects

The National Institute of Neurological Disorders and Stroke (NINDS) encourages applications for networks and pathways collaborative research projects. This announcement is made together with 11 other components of the National Institutes of Health (NIH).

The purpose of this announcement is to leverage and complement ongoing technology development being pursued in the National Technology Centers for Networks and Pathways (TCNPs) program—an NIH Roadmap program. TCNPs are interdisciplinary, combining multiple technologies to create novel approaches to map protein networks and pathways of interaction. The NIH Roadmap is an innovative approach to accelerate fundamental discovery and translate that knowledge into effective prevention strategies and new treatments.

For more information, potential applicants should contact Dr. Danilo Tagle, Program Director, Neurogenetics Cluster, NINDS; telephone: 301-496-5745; e-mail: dt39y@nih.gov. For a more detailed description of this announcement, visit http://grants.nih.gov/grants/guide/pa-files/PA-07-266.html.*NN*

Neurovascular Mechanisms of Brain Function and Disease

The National Institute of Neurological Disorders and Stroke (NINDS) and the National Institute on Aging (NIA) encourage applications for research on neurovascular mechanisms of brain function and disease.

Stroke is widely recognized as a major cause of premature death and disability, particularly cognitive and motor impairment. Significant progress has been made in dissecting the molecular pathways of excitotoxicity, oxidative stress, and apoptosis in ischemic neuronal cell death. However, translation of these laboratory results into clinically effective stroke treatments remains a major challenge for the stroke community today. The purpose of this announcement is to achieve a better understanding of the integration of cerebrovascular and neurological mechanisms in the development of the healthy brain, in the maintenance of function in the aging brain, and in neurological disorders and stroke.

For more information, potential applicants should contact Dr. Thomas Jacobs, Program Director, Neural Environment Cluster, NINDS; telephone: 301-496-1431; e-mail: tj12g@nih.gov. For a more detailed description of this announcement, visit http://grants.nih.gov/grants/guide/pa-files/PAR-07-197.html.*NN*

Pluripotent Stem Cells

The National Institute of Neurological Disorders and Stroke (NINDS) encourages applications for research on the characterization, behavior, and plasticity of pluripotent stem cells. This announcement is made together with 6 other components of the National Institutes of Health (NIH).

Stem cell research offers enormous potential for treating a host of congenital, developmental, psychiatric, and degenerative diseases for which there are no cures. In animal studies, multipotent progenitor cells from many different sources have been reported to generate cells with neuronal or glial properties, raising expectations that they could be used to replace lost neurons and glia, repair defective circuits, and restore functions compromised by abnormal development, age, physical damage, disease, or drug addiction. In addition, the ability to selectively produce one or more differentiated cell types from pluripotent stem cells would help in discovering the effects of drugs and environmental and genetic factors on differentiation and cell function in the human nervous system.

For more information, potential applicants should contact Dr. David Owens, Program Director, Repair and Plasticity Cluster, NINDS; telephone: 301-496-1447; e-mail: do47h@nih.gov. For a more detailed description of this announcement, visit http://grants.nih.gov/grants/guide/pa-files/PA-07-201.html.*NN*

Preliminary Investigations Leading to Optimal Trials in Neurology

The National Institute of Neurological Disorders and Stroke (NINDS) encourages applications for preliminary investigations leading to optimal trials in neurology.

NINDS is committed to identifying effective treatments for neurological disorders by supporting well-executed clinical trials. Before a definitive clinical trial can be designed, preliminary clinical studies are often required. The purpose of this announcement is to obtain preliminary data and conduct studies to support the rationale for a subsequent definitive clinical trial of an intervention to treat or prevent neurological disease.

For more information, potential applicants should contact Dr. Scott Janis, Clinical Research Project Manager, Clinical Trials Group, NINDS; telephone: 301-594-0211; email: sj151t@nih.gov. For a more detailed description of this announcement, visit http://grants.nih.gov/grants/guide/pa-files/PAR-07-294.html.*NN*

Research Project Grants

The National Institute of Neurological Disorders and Stroke (NINDS) encourages applications for research project grants. This announcement is made together with 21 other components of the National Institutes of Health (NIH).

Research project grants are awards made to institutions or organizations to support discrete, specified, circumscribed projects to be performed by scientists in areas representing the investigators' specific interests and competencies and based on the NIH mission. NIH awards R01 grants—which allow investigators to define the scientific focus or objective of the research based on particular areas of interest and competence—to institutions or organizations of all types.

For more information, potential applicants should contact 301-496-9248 or visit http://www.ninds.nih.gov/funding/areas/index.htm for a list of funding contacts by program area. For a more detailed description of this announcement, visit http://grants.nih.gov/grants/guide/pa-files/PA-07-070.html.*NN*

Rett Syndrome and MECP2

The National Institute of Neurological Disorders and Stroke (NINDS), the National Institute of Mental Health (NIMH), and the National Institute of Child Health and Human Development (NICHD) encourage grant applications for basic and clinical research on Rett syndrome (RTT) and MECP2.

RTT is a severely debilitating neurodevelopmental disorder. Girls with RTT appear to develop normally until about 6 to 18 months of age at which time they enter a period of regression. Until recently, little progress had been made in understanding the cause of RTT or in developing approaches for its treatment. However, the demonstration that mutations in the MECP2 gene are responsible for the majority of cases of RTT suggests new avenues for research and therapy development.

For more information, potential applicants should contact Dr. Laura Mamounas, Program Director, Neurogenetics Cluster, NINDS; telephone: 301-496-5745; e-mail: lm92t@nih.gov. For a more detailed description of this announcement, visit http://grants.nih.gov/grants/guide/pa-files/PAS-07-192.html.*NN*

Sarcoidosis

The National Institute of Neurological Disorders and Stroke (NINDS) encourages grant applications for research on the cause and treatment of sarcoidosis. This announcement is made together with 8 other components of the National Institutes of Health (NIH).

Sarcoidosis is a human immune-mediated disorder of granulomatous inflammation. Originally the disorder was described through its skin manifestations, however, involvement of multiple organs and organ systems soon was recognized. Although the clinical description and natural history of sarcoidosis are well recorded, many very basic things remain unknown about this problematic illness.

For more information, potential applicants should contact Dr. Michael Nunn, Program Director, Neural Environment Cluster, NINDS; telephone: 301-496-1431; e-mail: mn52e@nih.gov. For a more detailed description of this announcement, visit http://grants.nih.gov/grants/guide/pa-files/PA-07-136.html.*NN*

Sleep and Sleep Disorders

The National Institute of Neurological Disorders and Stroke (NINDS) invites grant applications for research on sleep and sleep disorders. This announcement is made together with 12 other components of the National Institutes of Health (NIH).

An estimated 70 million people in the United States suffer from sleep problems, and more than 50 percent of them have a chronic sleep disorder. Despite substantial scientific progress in both clinical and basic science related to sleep and its disorders, there remains the challenge and the need to better understand the functions and disorders of sleep, treat sleep disorders, and explain the nature of human physiology during wakefulness and the individual stages of sleep.

For more information, potential applicants should contact Dr. Merrill Mitler, Program Director, Systems and Cognitive Neuroscience Cluster, NINDS; telephone: 301-496-9964; e-mail: mm777k@nih.gov. For a more detailed description of this program announcement, visit http://grants.nih.gov/grants/guide/pa-files/PA-07-140.html.*NN*

Restless Legs Syndrome and Periodic Limb Movement Disorder

The National Institute of Neurological Disorders and Stroke (NINDS) invites grant applications for research on restless legs syndrome (RLS) and periodic limb movement disorder (PLMD). This announcement is made together with 3 other components of the National Institutes of Health (NIH).

RLS is a common neurological disorder characterized by unpleasant sensations of the legs and an urge to move them for relief. Because symptoms are intensified by inactivity and lying down, RLS patients often have difficulty falling asleep and staying asleep. An estimated 80 percent of RLS patients also have PLMD, which is characterized by repetitive stereotyped movements of the limbs, primarily the legs, during sleep.

For more information, potential applicants should contact Dr. Merrill Mitler, Program Director, Systems and Cognitive Neuroscience Cluster, NINDS; telephone: 301-496-9964; e-mail: mm777k@nih.gov. For a more detailed description of this announcement, visit http://grants.nih.gov/grants/guide/pa-files/PA-07-202.html.*NN*

Chronic Insomnia Disorder

The National Institute of Neurological Disorders and Stroke (NINDS) invites grant applications for research on chronic insomnia disorder. This announcement is made together with 3 other components of the National Institutes of Health (NIH).

Insomnia disorder affects approximately 10 percent of adults in the United States and results in decreased work and academic performance, increased risk of accidents and depression and other mental disorders, and increased health care costs. The purpose of this announcement is to encourage research on the disorder.

For more information, potential applicants should contact Dr. Merrill Mitler, Program Director, Systems and Cognitive Neuroscience Cluster, NINDS; telephone: 301-496-9964; e-mail: mm777k@nih.gov. For a more detailed description of this announcement, visit http://grants.nih.gov/grants/guide/pa-files/PA-07-047.html.*NN*

Small Business Research Applications

The National Institute of Neurological Disorders and Stroke (NINDS) invites applications for small business innovation research (SBIR) and small technology transfer research (STTR) grants. This announcement is made together with 34 other components of the National Institutes of Health (NIH), the Centers for Disease Control and Prevention (CDC), and the Food and Drug Administration (FDA), and is supported by 2 funding mechanisms: SBIR and STTR.

The goals of the SBIR program are to stimulate technological innovation in the private sector; strengthen the role of small business in meeting federal research or research and development needs; increase the commercial application of federally supported research results; foster and encourage participation by socially and economically disadvantaged small business and women-owned business concerns; and improve the return on investment from federally funded research for economic and social benefits to the Nation. The STTR program is intended to stimulate a partnership of ideas and technologies between innovative small business concerns and research institutions through federally funded research or research and development.

For more information, potential applicants should contact Dr. Randall Stewart, Program Director, Channels, Synapses, and Circuits Cluster, NINDS; telephone: 301-496-1917; e-mail: stewartr@ninds.nih.gov. For a more detailed description of this announcement, visit http://grants.nih.gov/grants/guide/pa-files/PA-07-280.html (SBIR) or http://grants.nih.gov/grants/guide/pa-files/PA-07-281.html (STTR).*NN*

Stem and Progenitor Cells

The National Institute of Neurological Disorders and Stroke (NINDS) invites grant applications for research on interactions between stem and progenitor cells and the microenvironment in vivo. This announcement is made together with 7 other components of the National Institutes of Health (NIH).

The objective of this initiative is to encourage researchers to thoroughly explore and characterize the bi-directional communication between multipotent cells and the three-dimensional local milieu or niche that they encounter in vivo under normal and compromised states—such as with aging or following injury, disease, or drug exposure. Of particular interest is the rigorous characterization of how interactions with localized cues in space and time regulate stem cell survival, migration, replication, and plasticity in the nervous system and other parts of the body.

For more information, potential applicants should contact Dr. David Owens, Program Director, Repair and Plasticity Cluster, NINDS; telephone: 301-496-1447; e-mail: do47h@nih.gov. For a more detailed description of this announcement, visit http://grants.nih.gov/grants/guide/pa-files/PAS-07-189.html.*NN*

Structural Biology of Membrane Proteins

The National Institute of Neurological Disorders and Stroke (NINDS) invites grant applications for research on the structural biology of membrane proteins. This announcement is made together with 9 other components of the National Institutes of Health (NIH).

Membrane proteins and their complexes play crucial roles in many cellular and physiological processes. They are essential mediators of material, information, and energy transfer between cells and their environment, compartments within cells, and compartments comprising the organ systems. Functionally normal membrane proteins are vital to health, and specific defects are associated with many known diseases.

For more information, potential applicants should contact Dr. Randall Stewart, Program Director, Channels, Synapses, and Circuits Cluster, NINDS; telephone: 301-496-1917; e-mail: stewartr@ninds.nih.gov. For a more detailed description of this announcement, visit http://grants.nih.gov/grants/guide/pa-files/PA-07-253.html.*NN*

Temporomandibular Joint and Muscle Disorders

The National Institute of Neurological Disorders and Stroke (NINDS) invites applications for research on temporomandibular joint and muscle disorders (TMJMDs). This announcement is made together with 4 other components of the National Institutes of Health (NIH).

TMJMDs are a complex collection of diseases involving one or more tissues of the temporomandibular joint and the face. Primary symptoms include chronic pain in facial muscles and limited and painful movement of the jaw. The purpose of this announcement is to stimulate research on discovering the cause(s) and pathophysiological mechanisms underlying chronic, comorbid conditions associated with TMJMDs.

For more information, potential applicants should contact Dr. Linda Porter, Program Director, Systems and Cognitive Neuroscience Cluster, NINDS; telephone: 301-496-9964; e-mail: lp216a@nih.gov. For a more detailed description of this announcement, visit http://grants.nih.gov/grants/guide/pa-files/PA-07-150.html.*NN*

Transmissible Spongiform Encephalopathies

The National Institute of Neurological Disorders and Stroke (NINDS) and the National Institute on Aging (NIA) invite grant applications for research on the mechanisms of transmission and dissemination of transmissible spongiform encephalopathies (TSEs).

TSEs or “prion diseases” are neurodegenerative disorders that can lead to dementia, motor dysfunction, and, eventually, death. Prion diseases include bovine spongiform encephalopathy in cattle, scrapie in sheep, chronic wasting disease in mule deer and elk, and kuru and Creutzfeldt-Jakob disease in humans. Little is known about the natural spread of TSEs within affected populations. Understanding the natural pathways by which TSEs arise and are transmitted may be critical for protecting populations at risk for acquiring these diseases.

For more information, potential applicants should contact Dr. Michael Nunn, Program Director, Neural Environment Cluster, NINDS; telephone: 301-496-1431; e-mail: mn52e@nih.gov. For a more detailed description of this announcement, visit http://grants.nih.gov/grants/guide/pa-files/PA-07-199.html.*NN*

Tuberous Sclerosis Complex

The National Institute of Neurological Disorders and Stroke (NINDS) invites grant applications for research on understanding and treating tuberous sclerosis complex (TSC). This announcement is made together with 4 other components of the National Institutes of Health (NIH).

TSC is a multi-system disease that causes benign tumors, or hamartomas, to form at multiple sites throughout the body. Hamartomas can develop in many different organs, primarily the brain, lungs, heart, kidney, skin, and eyes. There is no cure for TSC and treatment is symptomatic. A variety of mouse models of TSC are now available, providing an opportunity to understand the disease mechanisms and evaluate therapies.

For more information, potential applicants should contact Dr. Jane Fountain, Program Director, Neural Environment Cluster, NINDS; telephone: 301-496-1431; e-mail: jf227t@nih.gov. For a more detailed description of this announcement, visit http://grants.nih.gov/grants/guide/pa-files/PAS-07-190.html. *NN*

Vascular Cognitive Impairment

The National Institute of Neurological Disorders and Stroke (NINDS), the National Institute on Aging (NIA), and the National Heart, Lung, and Blood Institute (NHLBI) invite research grant applications aimed at understanding the genetics and pathobiology of vascular cognitive impairment.

The number of people affected by dementia in the United States is expected to increase three-fold in the next 50 years to a total of more than 13 million. The best-known form of dementia is Alzheimer's disease (AD), however, a large number of dementia cases in the elderly population are not due to AD, but rather to cerebrovascular disease. Dementia due to cerebrovascular disease is referred to as "vascular dementia" or "vascular cognitive impairment."

For more information, potential applicants should contact Lorenzo Refolo, Program Director, Neurodegeneration Cluster, NINDS; telephone: 301-496-5680; e-mail: lr259r@nih.gov. For a more detailed description of this announcement, visit http://grants.nih.gov/grants/guide/pa-files/PAS-07-194.html. *NN*